Each

Dart Aerospace Ltd. Monday, 6/5/2006 7:47:24 AM Kim Johnston Process Sheet : BRACKET ASSEMBLY **Drawing Name** Customer : CU-DAR001 Dart Helicopters Services Job Number : 27368 : 10278 **Estimate Number** :NIA : D3121141 **Part Number** P.O. Number S.O. No. : 1/17 : 6/5/2006 : D3121 REV C2 **Drawing Number** This Issue : N/A Prsht Rev. Project Number : NA : MACHINED PARTS : C2 Type **Drawing Revision** First Issue : 26412 NIA Material **Previous Run** : 6/30/2006 **Due Date** Qty: 24 Um: Written By Checked & Approved By Comment : Est Rev: Pick: A 04.02.18 **Additional Product** Job Number: Description: Machine Or Operation: Seq. #: M174B1000X02000 17-4 SS Bar 1.0 Comment: Qty.: Total: 0.5775 f(s)/Unit 13.8600 f(s) Material: 17-4 SS Bar per AMS 5604/5643_ (M17-4-B1.000x02.000) Identify for D3121-111 BAND SAW 2.0 Comment: BAND SAW 06/0 Cut blanks: (1.000" x 2.000") 6.600" long 3.0 Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3121-111 as per Folio FA361 and Dwg D3121Identify as D3121-111 , 2-Deburr

INSPECT PARTS AS THEY COME OFF MACI

4.0

QC2

3-Scribe batch number

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES								
DATE	STEP		PROCEDUF	RE CHANGE		Ву	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
		÷								
:										

NCR:		W	ORK OR	DER NON-CONFORMANCI	E (NCR)			
		Description of NC	<i> </i>	Corrective Action Section B	Verification	Approval	Approval	
DATE	STEP	Section A	Initial Design Mgr	Action Description Design Mgr	Sign & Date	Section C	Design Mgr	Approval QC Inspector
Bifod	30	3 parts without back chamfer tool broke in the machine i open pturdidn't notice the chamfer was it there. Homoperature vov.	Boom	Chanter monuply as per Duy.	SD. 07. 16.	06-09-25	Essus	8-07-18
		•						
		-						
						•		
			ļ -					

Part No:	PAR #:	Fault Category: N	ICR:	Yes No DQA:	Date: <u>06/09/성</u> 용
NOTE: Date & initial all entries				QA: N/C Closed:	Date:

Monday, 6/5/2006 7:47:24 AM Date: User: Kim Johnston **Process Sheet** Drawing Name: BRACKET ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D3121141 Job Number: 27368 Job Number: Description: Seq. #: **Machine Or Operation:** SECOND CHECK 5.0 Comment: SECOND CHECK D312121 Bolt 6.0 Total: ___24.0000 Each(s) Comment: Qty.: 1.0000 Each(s)/Unit Pick: Description Batch **Qty Part Number** B27412 X16 1 D3121-21 J. 6 06/09/12 21 BƏ785 I 7.0 D3121241 Bearing Assembly 1.0000 Each(s)/Unit Total: 24.0000 Each(s) Comment: Qty.: Pick: Description Batch **Qty Part Number** B 26929 B21433 X 7 J. E 1 D3121-241 Bearing Ass SMALL & MEDIUM FAB RESOURCE 1 8.0 Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble D3121-141 as per Dwg D3121. 9.0 QC5 Comment: INSPECT WORK TO CURRENT STEP PACKAGING RESOURCE #1 10.0 **PACKAGING 1** Comment: PACKAGING RESOURCE #1 Identify and Stock Location: 11.0 DC Comment: DOCUMENT CONTROL Inspection Level 21 Job Completion

Page 2

24

Form: rprocess

W/O:			W	ORK ORDER	CHANGES					
DATE	STEP	PROCEDURE CHANGE				Ву	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
-										
NCR:			WORK ORE	DER NON-CO	NFORMANO	E (NCR)			
DATE	STEP	Description of NC Section A	Initial		ction Section B	Sign &		cation	Approval	Approval QC Inspector
		Section A	Design Mgr	Desig	n Mgr	Date	Sec	tion C	Design Mgr	QC inspector
					e		ì			
				,						

Part No:	PAR #:	Fault Category: NO	CR:	Yes	No	DQA:	Date:
NOTE: Date & initial all entries	.*		(QA: N	/C CI	osed:	Date:

DART AEROSPACE LTD	Work Order:	27368
Description: Bracket	Part Number:	D3121-111
Inspection Dwg: D3121 Rev: C2		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
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Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments
Dimension	Totoranoo	Dimension	1.000		Inspection	
Ø0.392	+0.002/-0.000	. 392				
0.75	+/-0.030	.750				
0.375	+/-0.010	375				
2.14	+/-0.030	2-160				
0.950	+/-0.010	. 949	/			
0.600	+/-0.010	.600			,	
1.96	+/-0.030	1960	/			
0.280	+/-0.010	.283	/			
3.330	+/-0.010	3,325	/			
3.630	+/-0.010	3.632				•
R0.25	+/-0.030	-25				
R0.375	+/-0.010	,375				
Ø0.201	+0.005/-0.000	.201	/			
0.100	+/-0.010	100				
		1 101				1
6.18	+/-0.030	6.181	//			
5.89	+/-0.030	5.888	/			
0.080	+/-0.010	.082	//			
0.300	+/-0.010	302				
30°	+/-0.1°	30°	//			
R0.25	+/-0.030	.25				
0.130	+/-0.010	-/31				
		201-				
0.381	+/-0.010	385	//			
0: 281 .2d	+/-0.010	(20 <u>1</u>	J			
0.400	+/-0.010	. 400				,
0.580	+/-0.010	. 578	1			
		/2.3	l			
100°	+/-0.1°	100°				
0.32	+/-0.010	<u> </u>	 / 			
0.32	+/-0.010	O3 <i>O</i>	1 4			

Measured by:	Audited by:	Prototype Approval:	N/A
Date: 00/07/13	Date: 06/07/13	Date:	N/A
		Did b	A

	Rev	Date	Change	Revised by	Approved
	Α	04.01.12	New Issue P/O D3121-141	KJ/RF	21
1	. В	04.05.05	Dimensions changed/re-arranged per Dwg revision	KJ/JLM O	<i>SM</i>
				()	/ /

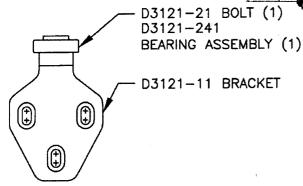




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	CHEC	KED ,,	APPROVED	DRAWING NO.	REV, C
		#	df	D3121	SHEET 1 OF 10
	DATE			TITLE	SCALE
	04.0	2.17		BRACKET ASSEMBLY	1:2
	A		02.04.15	NEW ISSUE	
	Б		07.01.16	ADD RIDGES; ADD MAT'L F	PROP; FIX P/N

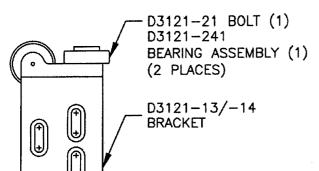
RELEASED

DATE		IIILE SOME
04.0	2.17	BRACKET ASSEMBLY 1:2
Α	02.04.15	NEW ISSUE
В	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
С	04.02.17	ADD CLEARANCE; USE -241 BEARING
CI	Opt 04.03.26	397 WAS 400; 6.11 WAS 6.14
CZ	JE 14 04.04.26	0,230 WAS 0.238



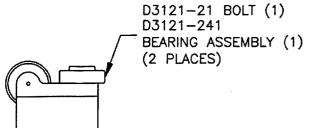
D3121-041 BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-33)



D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-15/-16 BRACKET

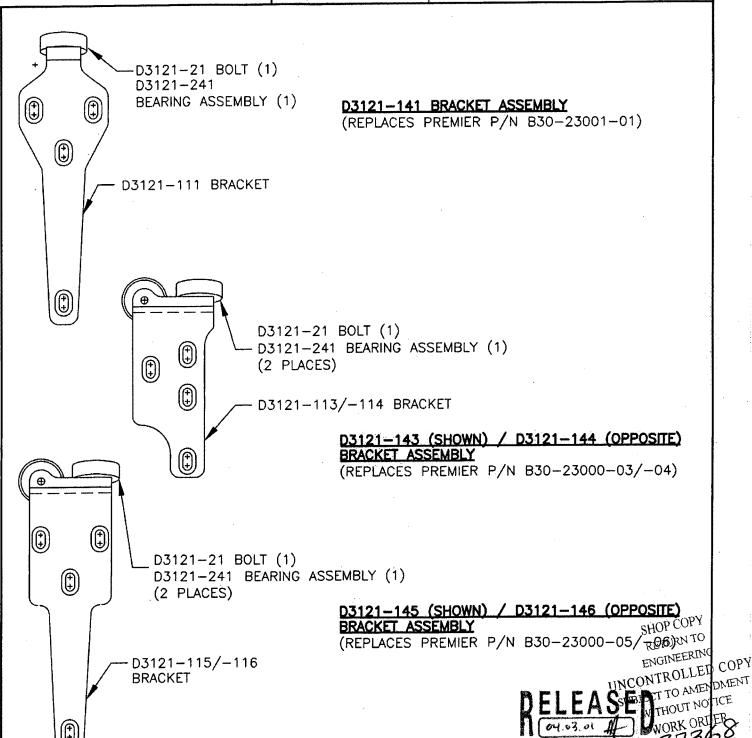
D3121-045 (SHOWN) / D3121-046 (OPPOSITE) (REPLACES PREMIER P/N B30-23000-35/-36)

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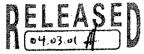
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DATE	1 1	TITLE	SCALE
04.02.17		BRACKET ASSEMBLY	1:2



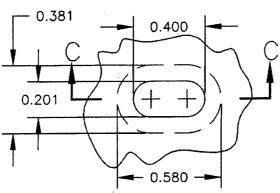


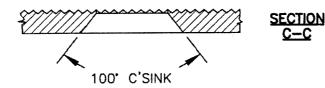


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DATE	1 94	TITLE	SCALE
04.02.17		BRACKET ASSEMBLY	1:1

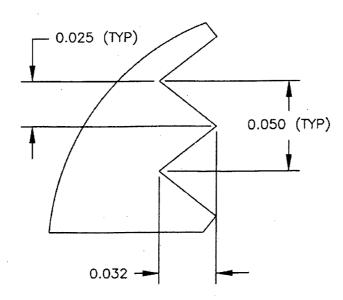


DETAIL A: SLOT DETAIL SCALE 2:1 VIEW ROTATED





DETAIL B: RIDGE DETAIL PARTIAL SECTION **SCALE 1:20**

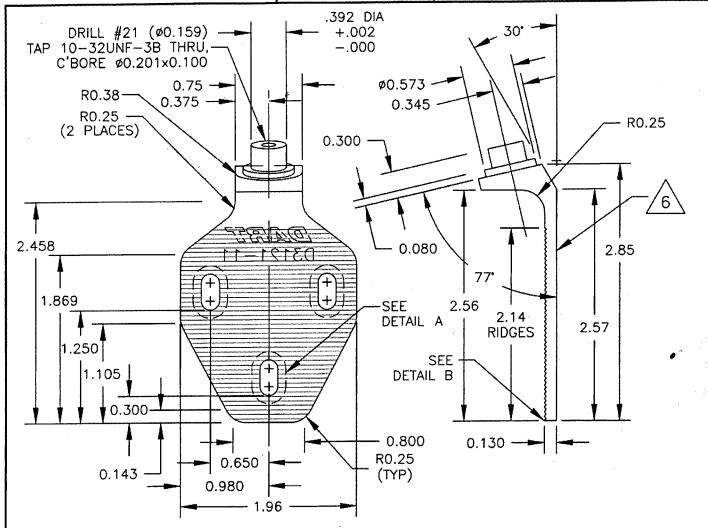


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DATE		TITLE	SCALE
04.02.17		BRACKET ASSEMBLY	1:1



D3121-11 BRACKET

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 0.005 TO 0.015

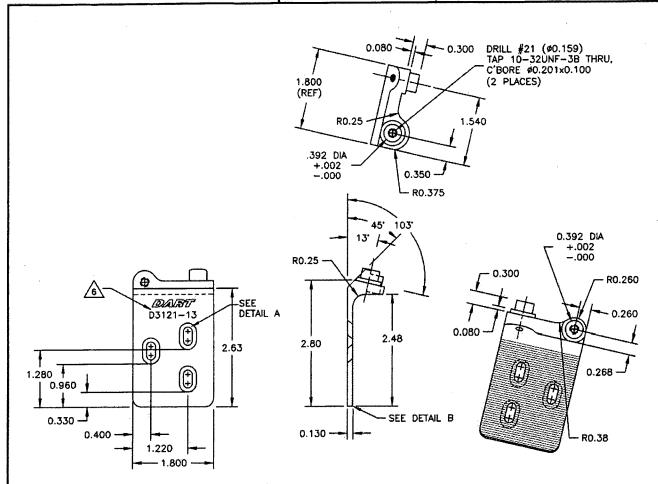
5) ENGRAVE DART P/N & LOGO AS SHOWN
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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#	1 #	D3121	SHEET 5 OF 10
DATE		TITLE	SCALE
04.02.18		BRACKET ASSEMBLY	1:2



D3121-13 BRACKET (SHOWN)
D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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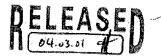
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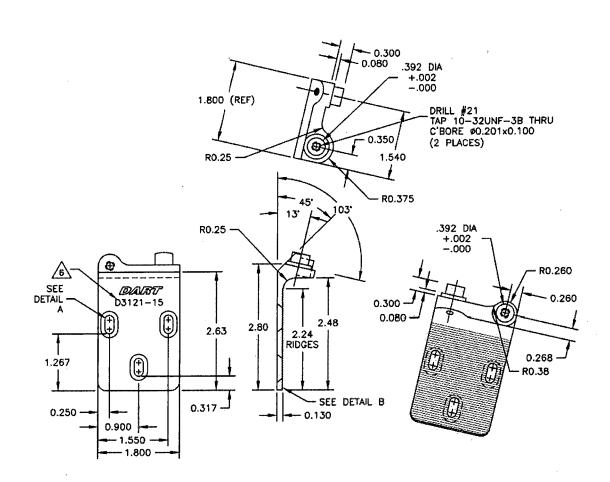


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	#	1 #	D3121	SHEET 6 OF 10
	DATE	<u></u>	TITLE	SCALE
	04.02.18		BRACKET ASSEMBLY	1:2



D3121-15 BRACKET (SHOWN)
D3121-16 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N AND LOGO AS SHOWN

6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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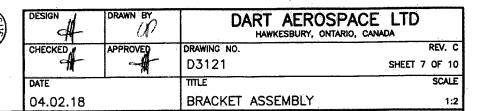
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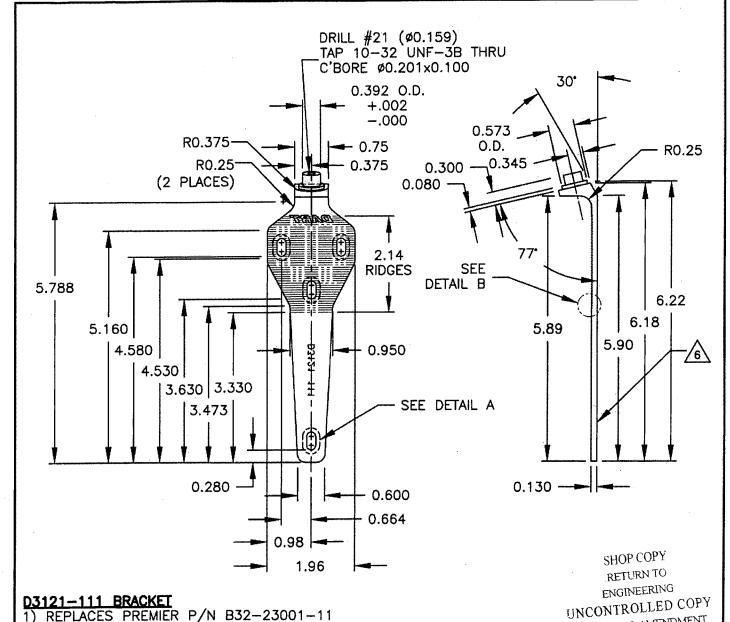
WORK ORDER



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D3121-111 BRACKET

1) REPLACES PREMIER P/N B32-23001-11

2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED

4) ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART P/N & LOGO IN AREAS SHOWN

HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

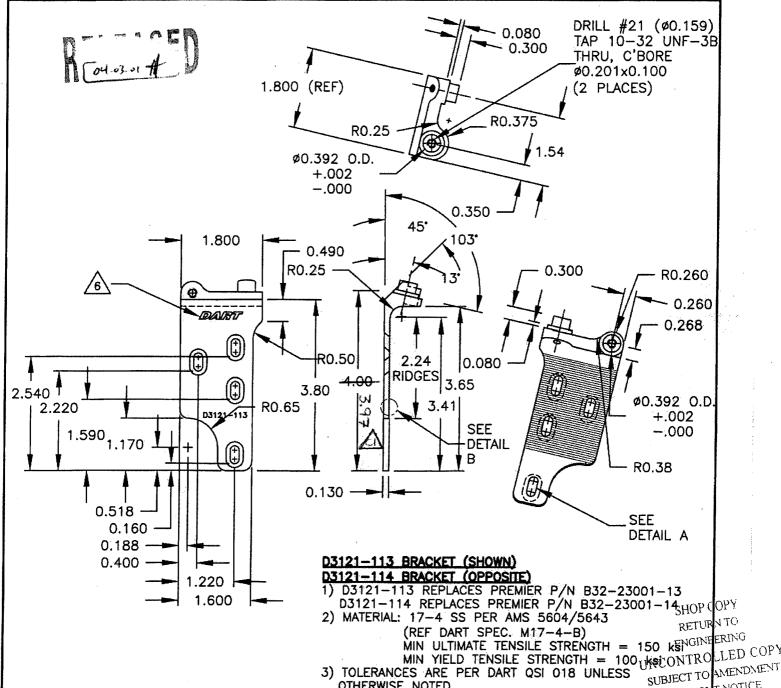
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	DATE		TITLE	SCALE
·	04.02.18		BRACKET ASSEMBLY	1:2



4) ALL DIMENSIONS ARE IN INCHES BREAK ALL SHARP EDGES 0.005 TO 0.015

OTHERWISE NOTED

ENGRAVE DART P/N & LOGO IN AREAS SHOWN

NO.ZZ HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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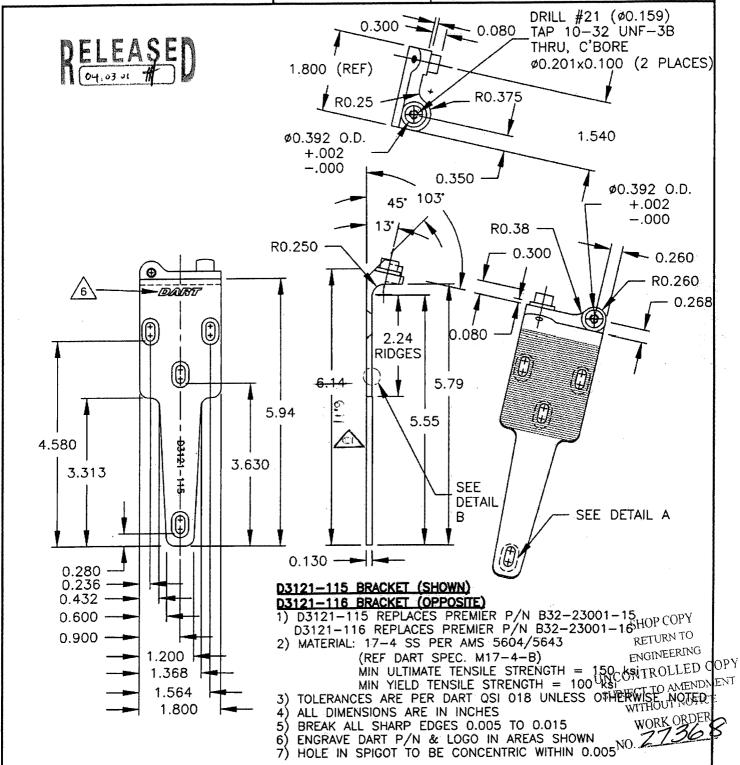
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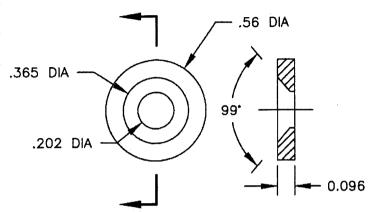
DESIGN	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
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04.02.18		BRACKET ASSEMBLY	1:2







	DESIGN DRAWN BY		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
'	CHECKED	APPROVED	D3121	REV. C SHEET 10 OF 10
-	DATE		TITLE	SCALE
	04.02.17		BRACKET ASSEMBLY	1:1



D3121-17 WASHER (SCALE 2:1)

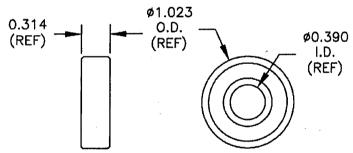
1) REPLACES PREMIER P/N B32-23001-17

2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
3) TOLERANCES ARE PER DART QSI 018 UNLESS

OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

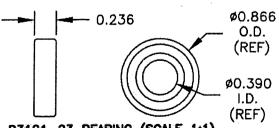
5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-19 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD

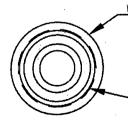
2) ALL DIMENSIONS ARE IN INCHES



D3121-23 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ

2) ALL DIMENSIONS ARE IN INCHES



UIDGOZTROLLED SCAPECT TO AMEND WITHOUT NOTICE

0.375 -TAP 10-32 UNF-3A 0.080 - 0.050 TO 0.060

D3121-21 BOLT (SCALE 1:1)

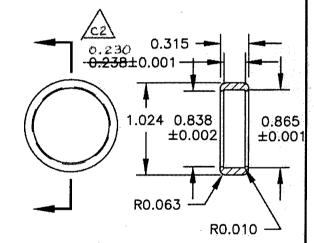
MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC, M303H0.500)

FINISH: NONE

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-25 CAP (SCALE 1:1)
1) MATERIAL: DELRIN ROD, Ø1.25

(REF DART SPEC. M-DELRIN-R1.250)
TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

RETURN TO ENGINEERING

WORK ORDE 27366 D3121-23 BEARING

D3121-241 BEARING ASSEBLY (SCALE 1:1)